



October 2006  
Volume 3, Issue 2

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# AFIS BYTES

*The Newsletter of Fingerprint Technologies*

## FLIGHT 5191 AFIS RESPONSE

The tragedy that we beheld on the morning of Sunday, August 27<sup>th</sup>, 2006 claimed the lives of 49 victims from all different walks of life. This was the largest loss of life due to a commercial air disaster in the history of the Bluegrass and brought together a group of experts that ultimately proved their distinguished forensic expertise to an entire nation. The medical examiner's office was swarming with more than forty forensic specialists on Sunday evening, many that had never met prior to this incident, yet worked cohesively following the crash like they were an intricately laced unit that responded to mass casualties on a daily basis. One National Transportation Safety Bureau representative referred to this as "the most organized disaster he had ever been a part of." The identification of forty-nine bodies relied primarily on dental records, as well as, fingerprints. A special thanks goes out to more than nine AFIS experts who responded that day. Lead Investigator Senior Forensic Latent Fingerprint Analyst, Howard Jones, a twenty-six year veteran with the

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## Uncuff Prisoners Before Fingerprinting

**F**ingerprinting is a fundamental part of the record keeping process and without it a criminal record for each offender would not be accurate. Non-fingerprint supported charges will never appear for the offender regardless of seriousness of charge. For this reason, the quality of fingerprints that your facility submits can be detrimental if they are not up to standards. Very basic fingerprinting techniques have been set forth to ensure a good quality print each and every time you roll them. There is, however, quite a dilemma in attempting to roll fingerprints while a prisoner is still handcuffed. The proper motion to roll a

print while a subject is uncuffed can sometimes yield an uncomfortable or tense environment and result in poor print quality. So one can see the implications of that same environment with restraints such as handcuffs. The prints your getting while a prisoner's hands are restrained are not the quality prints the Kentucky State Police AFIS Section, or the Federal Bureau of Investigation for that matter, require. The freedom to roll the fingers in a continuous nail to nail motion is an absolute must for the best prints possible. Don't forget that the more area of the prints you take dramatically increase the chances of making an identification on an unsolved latent case in our database. To make your fingerprinting experience the easiest and most productive possible, see the examples below.



**The Incorrect Way to Roll Prints**



**The Correct Way to Roll Prints**

## **NOTIFICATION LETTERS**

### **OF FBI FINGERPRINT**

### **REJECTIONS**

Letters are being disseminated to all facilities if, and only if, AFIS system administration has received numerous rejections from the FBI for any particular reason. The possible reasons your facility may receive one of these letters are listed below. If your facility does receive correspondence of FBI rejections please respond accordingly to fix the problem to ensure all fingerprint submissions complete the transmission process.

- ◆ *Prints are not rolled correctly.*
- ◆ *Using unacceptable punctuation marks in certain fields. (For instance, using slashes, hyphens, or commas in the driver's license field.)*
- ◆ *Listing your detention center ORI as the arresting agency field. (The FBI does not recognize detention facilities as having arresting power.)*
- ◆ *The printing glass has not been cleaned properly and results in unacceptable images.*
- ◆ *Plain impressions are being replicated or out of sequence.*
- ◆ *Class D submissions need a literal description in the charge field rather than a numerical violation code. (For instance, instead of typing 02400. Type Disorderly Conduct.)*
- ◆ *Inadvertently selecting the Class D profile, rather than the Criminal profile while booking in a fresh arrests. Class D is used for convicted and sentenced subjects only.*

### **... Fingerprint Pattern Types**

There are three major types of fingerprint patterns. They are the arch, loop, and whorl. Below are the percentages of fingerprint patterns worldwide.

- ◆ Arches - approximately 5% of all fingerprints
- ◆ Loops - approximately 60 - 65% of all fingerprints
- ◆ Whorls - approximately 30 - 35% of all fingerprints

### **... The Earliest Application of Fingerprints Dates Back Four Thousand Years Ago!**

The earliest dated prints of the ridged skin on human hands and feet were made about 4,000 years ago during the pyramid building era in Egypt. It was common practice for the Chinese to use inked fingerprints on official documents, land sales, contracts, loans and acknowledgments of debts.

### **... Fingerprints Are Volar Skin**

The volar skin (skin on the fingers, palms, toes and the soles of the feet) has a texture surface that is continuously corrugated with raised area or ridges. These ridges increase the friction between the volar surface and other surfaces that they come into contact with. These ridges are commonly referred to as friction ridges.

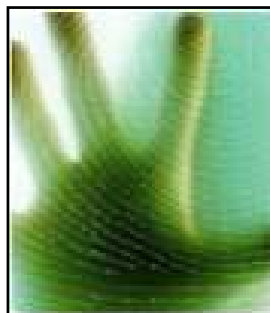
- ◆ *When using a JMS interface, mandatory fields are not being populated. (For instance, skin tone, height, or weight may need to be entered manually.)*

only evidence to convicting a criminal or placing them at a crime scene.

The Unsolved Latent Fingerprint Database currently has close to 23,000 prints that have gone unmatched and many of those will sit and wait for years until some officer at a detention facility books in an offender on a new arrest. This consistent booking process can often result in a latent reverse search identification as it was on May 3, 2006.

## **Cold Case File**

The importance of fingerprinting an offender on each and every offense no matter the severity of the charge is pivotal when it comes to cold cases. Often a minor charge will bring in an offender who committed a crime years ago that went unsolved because at that time they had no prior quality prints on file. A latent fingerprint is often the



Daviess County Detention Center booked in an individual on some first offense drug charges and the result of fingerprinting that subject yielded a successful latent reverse search identification.

This particular latent print had been pulled from a homicide case that was actively open but had gone

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Kentucky State Police, played a cardinal role in the collection of the prints from the bodies, with assistance from AFIS personnel, Lieutenant Tanya Clark, Jane Poe, William Mills, Stan Slonina, Terry Lohrey, Paul Dorman, Doug Stewart, and Hollie Freeman. Though the bodies sustained heavy burns, analysts were able to collect prints from close to 80 percent of the victims that were good enough for identification. After all identifications were made, Howard Jones stated, "This was a great team effort in the face of tragedy. The cooperation of my fellow colleagues throughout this investigation exceeded my own expectations. This will remain a landmark in all of our careers. The Flight 5191 crash was something we should all be honored to have the opportunity to give our expertise to." Further investigation into those aboard the flight revealed a previous colleague of AFIS, Rebecca Adams, who perished that day. For all the victims and their families we extend our deepest sympathies.

*Continued from Page 2 – Cold Case*

unsolved. It was a homicide and robbery that occurred at a local business in Owensboro. Two employees were in the store during the robbery and one of them was killed by a shot in the chest.

The case was previously submitted to a latent analyst with more than fifty latent lift prints from the crime scene and from a vehicle that the suspects fled in. At the time of submission, four prints were identified to two of the four suspects. No other evidence could link the other two suspects to the crime, until now. Another suspect was now identified through the prints submitted through the new arrest.

Often a first arrest can yield previous crimes committed by an individual via the unsolved latent database, but surprisingly it is far more common that the second, third, fourth, or even more arrests will yield latent hits. Studies have shown that close to 70% of the latent reverse search hits are not from a subject's first arrest, rather a subsequent one. This reiterates the importance of continually printing every individual that walks through your facilities door, as you never know what other crimes you will solve by doing so.

### Agencies Who Have Received Livescan Training

- **Probation and Parole**
- **Big Sandy Regional Detention Center**
- **Casey County Detention Center**
- **Johnson County**
- **Kentucky River Regional Jail**
- **Fayette County Detention Center**
- **Campbell County Detention Center**
- **Montgomery County Regional Jail**
- **Marion County Detention Center**
- **Jessamine County Detention**
- **Luther Luckett Correctional Complex**
- **Fayette Regional Juvenile Detention Center**
- **Hardin County Detention Center**
- **Adair County Regional Jail**
- **McCracken County Regional Jail**
- **Boyd County Detention Center**
- **Breathitt County Jail**
- **Warren County Detention Center**
- **Carroll County Regional Detention Center**
- **Daviess County Detention Center**
- **Attorney General's Office**
- **Fish and Wildlife**
- **Lebanon Police Department**
- **Owen County Jailers**
- **Kentucky State Police**

## UPCOMING TRAINING DATES

**Oct. 3rd, 9:00 A.M. and 1:00 P.M.**  
**Criminal ID and Records Building,**  
**Conference Room**  
**Livescan Training**

To schedule your personnel for training on this date call (502) 227-8723 or email us at [livescan@ky.gov](mailto:livescan@ky.gov).

**Oct. 19th, 9:00 A.M. and 1:00 P.M.**  
**Criminal ID and Records Building,**  
**Conference Room**  
**Livescan Training**

To schedule your personnel for training on this date call (502) 227-8723 or email us at [livescan@ky.gov](mailto:livescan@ky.gov).

**Nov. 7th, 9:00 A.M. and 1:00 P.M.**  
**Criminal ID and Records Building,**  
**Conference Room**  
**Livescan Training**

To schedule your personnel for training on this date call (502) 227-8723 or email us at [livescan@ky.gov](mailto:livescan@ky.gov).

**Nov. 16th, 9:00 A.M. and 1:00 P.M.**  
**Criminal ID and Records Building,**  
**Conference Room**  
**Livescan Training**

To schedule your personnel for training on this date call (502) 227-8723 or email us at [livescan@ky.gov](mailto:livescan@ky.gov).

**Dec. 5th, 9:00 A.M. and 1:00 P.M.**  
**Criminal ID and Records Building,**  
**Conference Room**  
**Livescan Training**

To schedule your personnel for training on this date call (502) 227-8723 or email us at [livescan@ky.gov](mailto:livescan@ky.gov).

**These dates are available  
 first come, first serve, and  
 will not exceed 15 per session.**

## AFIS STATS

### Tenprint Records

Counts Are Per Quarter  
April - June

LiveScan Bookings	37,452
Card Scans Submitted	6,808
Searches (LiveScans & Cards)	44,260
Tenprint Data Base Size	759,185

### Latent Records

Counts Are Per Quarter  
April - June

Latent Identifications	233
Unsolved Latent Data Base Size	22,479

### Year Ending Totals for 2005 (Counts are as of December 1, 2005)

LiveScan Bookings	138,364
Card Scans Submitted	11,855
Searches (LiveScans & Cards)	183,634
Tenprint Data Base Size	738,287
Latent Identifications	527
Unsolved Latent Data Base Size	23,428

Please submit all questions,  
stories, comments, and  
suggestions to:

Kentucky State Police  
AFIS Section  
Attn: Hollie Freeman  
1250 Louisville Road  
Frankfort, Kentucky 40601

[Livescan@ky.gov](mailto:Livescan@ky.gov)

## Profiling AFIS

Jane Poe  
Forensic Fingerprint Supervisor

Her ability to lead an entire Automated Fingerprint Identification Section speaks for itself with more than 25 years of experience in fingerprints. Jane first came to the Commonwealth of Kentucky in 1976 and later with the Kentucky State Police in 1978 in the Criminal ID and Records Branch. She pioneered through the creation and formation of the AFIS section, as well as, played a pivotal role in the years it has taken to make the fingerprint process automated in Kentucky. Her exceptional performance as a fingerprint examiner led her up the chain of success where she earned supervision status in 1986 and has continued to supervise some of the state's most distinguished fingerprint and latent fingerprint specialists for twenty years. Along with her in house training, Jane spends a lot of time in the field training and giving presentations to universities, schools, and law enforcement agencies. She has



developed skills of distinction throughout her career and many have had the privilege of sharing in her extensive knowledge in the fingerprint field. Her continued support and leadership of the AFIS employees has shaped and formed a long standing reputation that will extend beyond her upcoming retirement.

## Questions and Answers

**Q: What can I clean the fingerprint glass on the livescan with?**

**A:** A clean glass is a critical part of fingerprint submission via the livescan. Without proper cleaning the glass will not allow a clear image of the prints. The livescans are stocked with cleaning cloths inside the lower cabinet of the livescan. These cloths are provided at all sites and if not presently at your site can be obtained by contacting the Kentucky State Police Help Desk at (800) 858-5465, 24 hours a day, 7 days a week.

**Q: Where can I get the latest copy of the Violation Codes?**

**A:** A complete list of the Uniform Crime Reporting or Violation Codes can be found on the Kentucky State Police Public Website at [www.kentuckystatepolice.org](http://www.kentuckystatepolice.org). Once on the home page navigate to the Crime and Traffic Information page. Scroll to the bottom of the page where the violation codes are offered in Adobe pdf format, Microsoft Word format, or Rich Text format.

**Kentucky State Police  
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*Inside: A Newsletter from the Kentucky State Police  
Automated Fingerprint Identification Section*